Office Ergonomics

Adjusting Your Workstation to Fit Your Body

What is Ergonomics?

- ERGO="work"
  - NOMICS= "rules" or "laws"
    - Ergonomics literally means "the laws of work"

What is Ergonomics?

- **OSHA defines ergonomics as the science of "designing the job to fit the worker, instead of forcing the worker to fit the job."**

What is Ergonomics?

- Ideally, ergonomics:
  - **Makes the job safer by preventing injury and illness**
  - **Makes the job easier by adjusting the job to the worker**
  - **Makes the job more pleasant by reducing physical and mental stress**
  - **Saves money $$$**

Ergonomic Factors

- Two Categories of Ergonomic Factors

1. Environmental
2. Physical

Environmental Factors

- Environmental factors may affect:
  - **Hearing**
  - **Vision**
  - **General comfort and health**

Environmental Factors

- Some examples of ergonomic environmental problems are:
  - **Sick Building Syndrome**
  - **Excessive noise**
  - **Improper lighting**
  - **Temperature extremes**

Physical Stressors

- Physical stressors place pressure or stress on parts of the body:
  - Joints, muscles, nerves, tendons, bones
- Sometimes these injuries are referred to as “Cumulative Trauma Disorders” (CTDs) or “Repetitive Strain Injuries” (RSIs)

Cumulative Trauma Disorders (CTDs)

- **C**umulative = occurring gradually over a period of weeks, months, or years
- **T**rauma = bodily injury to nerves, tissues, tendons, or joints
- **D**isorders = physical ailments or abnormal conditions

Cumulative Trauma Disorders

- Examples of Cumulative Trauma Disorders include:
  - Carpal Tunnel Syndrome
  - Epicondylitis
  - Tenosynovitis
  - Bursitis

Risk Factors

- The main risk factors for office-related CTDs are:
  - Repetition
  - Awkward positions or posture
  - Excessive pressure or force
- Another risk factor for CTDs would be:
  - Vibration

Risk Factors: Repetition

- The majority of CTDs are caused by repetitive motions that would not result in injury if only performed once.
  - Thousands of keystrokes typing
  - Hours of filing, day after day
  - Stamping dozens of papers
  - Frequent lifting
  - Repeated motions with computer mouse

Risk Factors: Awkward Positions

- Leaning forward at your desk
- Typing with wrists at an odd angle
- Raising shoulders while typing
- Reaching to use mouse
- Twisting neck to look at monitor or phone
- Lifting objects from below waist or above shoulders

Risk Factors: Excessive Force

- Typing with too much force or “pounding” the keys
- Stamping
- Lifting heavy boxes of paper or carrying office equipment
- Using improper grip

But the good news is….

There are simple ways to help yourself!

Prevention Strategies

- The elbows should be at a comfortable angle while "hanging" at the sides from the shoulders. The shoulders should remain relaxed in a lowered position while typing.

Prevention Strategies

- Avoid leaning forward at your desk
  - Maintain natural “s” curve of your spine
  - Support lower back
  - Keep feet supported on floor or use a foot rest

Prevention Strategies

- Avoid typing with wrists at an odd angles…
  - keep them in the neutral position, not bent up or down, or side-to-side

Prevention Strategies

- The keyboard should be slightly lower than normal desk height.
  - If it is not low enough, try raising your chair height. Prevent your legs from dangling by using a footrest.
- Keep "home row" of keys at elbow level.
- Adjust your chair!

Prevention Strategies

- Do not pound the keys. Use a light touch.
- Use two hands to perform double key operations like Ctrl-C or Alt-F instead of twisting one hand to do it.
- Position frequently used equipment so that you don't have to reach for it.

Prevention Strategies

- Place monitor in front of you, not off at an angle.
- Take breaks to stretch and relax.
- Hold the mouse lightly.
- Keep your hands and arms warm.

Prevention Strategies

- Pay attention to the signals your body provides you.

  If your neck hurts at work, examine your body position to try to figure out what might be causing the soreness. Are you holding your neck at an awkward angle while you type or talk on the phone?

Prevention Strategies

- If you are experiencing symptoms of CTDs…
  - **Tingling or numbness in the hands or fingers**
  - **Pain in fingers, hands wrists, or even shooting up into the arms or forearms**
  - **Loss of strength or coordination in the hands**
  - **Numbness or discomfort in the hands that wakes you up at night….** **SEE A DOCTOR!**

But What About Headaches?

- Many office-related headaches are caused by eyestrain.
  - Dry eyes
  - Monitor glare
  - Tired/strained eye muscles

Eyestrain

- Position monitor at a comfortable distance
- Avoid glare
- Adjust VDT brightness and contrast
- Keep screen clear of dust
- Look up and away every few minutes or so!

Ergonomic Products

- There are a variety of ergonomic products available on the market, including:
  - **Keyboards**
  - **Wrist rests**
  - **Mouse pads**
  - **Chairs**
  - **Adjustable desks**
  - **Glare screens**